## REMARKS

In this amendment, no claims have been amended, added or canceled. Claims 1-9, 16-24, 27,-29 and 31-40 are pending for examination with claims 1, 4, 7, 16, 17, 22, 27, 29, 31, and 33 being independent claims.

A. Amendments to the Specification

All of the amendments made herein are offered for the purpose of correcting obvious typographical errors identified in the course of translating the application into Japanese. No new matter has been added.

B. Discussion of Advisory Action

In addition to entering the response filed by Applicants on December 20, 2002 as requested in the RCE transmitted herewith, Applicant submits the remarks below in response to the Examiner's comments in the Advisory Action mailed January 14, 2003.

In paragraph G of the Advisory Action, the Examiner states that the provisional double patenting rejection is still considered to be proper since no Applicant's response has been received. Applicants presume that this is because the previously submitted amendment has not been entered and note that in that amendment Applicants noted the provisional nature of the rejection and reserved the right to respond at a future time.

In paragraph C, the Examiner states that the objection to the drawings is still considered to be proper since Applicants' proposed changes to Figures 5, 10, 31 and 35 have not been entered. Accordingly, Applicants provide herein no further response to the drawing objection and await the entrance and consideration of the previously submitted arguments and amendments upon receipt of the RCE transmitted herewith.

In paragraph E, section 1 of the Advisory Action, the Examiner asserts that the rejection of claims 1-9 and 34-37 under 35 U.S.C. §103(a) over Fling et al, in view of Mehta et al., Lee et al., and Dingwall et al. is still proper because Fling and Mehta are "both clearly directed to PCM binary samples in the form of multi-bit digital signal [sic], therefore, the combination is totally proper." Not only is this statement totally unsupported by the facts, but it also totally ignores the rest of the arguments submitted in the amendment filed on December 20, 2003 (due to the non-

entry of the amendment). First, Fling is not directed to multi-bit digital signals as taught and claimed in the present application, i.e., parallel bits. PCM utilizes a single string of serial bits. Second, even if the assertion is correct, the Examiner has indicated that he has not fully considered all of the previously arguments for procedural reasons. Upon considering those arguments, it must be appreciated that Fling and Mehta do not disclose a multi-bit signal. The Examiner is respectfully requested to examine each and every aspect of those arguments, and, if the rejection is to be maintained, to address and refute each one of the arguments.

In paragraph E, section 2, the Advisory Action asserts that the rejection of claim 27 under 35 U.S.C. §103(a) over Yamashita, in view of Dingwall et al. is still considered to be proper because "both are clearly directed to digital to analog converter D/A, therefore, the combination is totally proper." The conclusory statement reveals a lack of logically factual and legal basis for the asserted combination. While it is clear that both Yamashita and Dingwall contain, in some form or another, digital to analog converters, this fact is not sufficient to support an obviousness rejection based on the *combination* of the two references. As stated in MPEP Section 706.02(j), to establish a *prima facie* case of obviousness, three criteria must be met: there must be some suggestion or motivation in the prior art to combine the references; there must also be a reasonable expectation of success found in the prior art; and the combination or modification must anticipate the claimed invention. The mere statement that Yamashita and Dingwall both disclose digital to analog converters meets *none* of these criteria. Since the arguments submitted with the amendment filed December 20, 2002 refuted at least two of these requirements, and because the Examiner has failed to provide any substantive response or acknowledgement of those *remarks*, the Examiner is respectfully invited to consider them and to either withdraw the rejection or, if the rejection is to be maintained, provide a reasoned, articulated substantive response addressing the issues raised therein.

In paragraph F, the Examiner holds that the rejection of claims 17-24, 28-33, and 38-40 under 35 U.S.C. §102(e)over Watson et al. is still considered to be proper because "Watson... does clearly teach in Fig. 4 that when switches 78 are in the middle positions, capacitors 70, 72, and 74 will be connected to output voltage Vout and charge sharing will occur from final summing node 58 to bypass capacitor 60 (see lines 58-59, column 6)." Again, not only does this

remark fail to address or acknowledge the *specific* arguments made in the previous response, but also it utterly fails to support the rejection, as discussed below.

It would be unproductive and inefficient to discuss the above assertion with respect to each of the relevant independent claims, since such a treatment has been submitted in the previous amendment and awaits consideration. However, each of the claims at least recites a switched-capacitor DAC, having a plurality of subDACs (the capacitors 70 through 74 in Watson), having an operating state in which at least two of the plurality of sub DACs share charge with one another such that the associated charges are redistributed. Contrary to the assertion above, Watson does not meet this limitation. The Examiner has pointed to a portion of Watson that uses the words "charge sharing" but Watson fails to teach charge sharing *as claimed*, since in Watson the "charge sharing will occur from final summing node 58 to bypass capacitor 60." Applicant does not claim charge sharing from a "node" to a bypass (output) capacitor; what is claimed is specifically a DAC having an operating state in which **at least two of the plurality of sub DACs share charge with one another such that the associated charges are redistributed**. Watson does *not* disclose redistribution of charge between subDACs. Watson teaches transfer of charge from a *node* to an output capacitor *which is not a subDAC*. As discussed in the previously submitted response **and not refuted or addressed by the Examiner in any way**, it is not possible for the device of Watson to feature charge sharing between at least two of a plurality of subDACs because the voltage across the terminals of capacitors 70 through 74 is determined at all times, even during phase PH1 discussed in the portion of Watson referenced by the Examiner. From column 6, lines 52 to column 7, line 8, Watson discloses that the node 58 is driven to VCM, as indicated in Fig. 4, and capacitors 70 through 74 charge simply discharge their charge to the output capacitor, rather than redistributing it between subDACs as claimed.

In addition, the rejected claims recite that the switched capacitor DAC outputs an analog signal that is indicative of the multi-bit input signal received by the switched capacitor DAC **using less than all of the redistributed charge**. Even ignoring the fact that Watson doesn't redistribute charge, the reference still fails to anticipate the claimed invention since it outputs all of the charge of the subDACs to the output capacitor.

In summary, because the previous amendment has not been entered and because the Advisory Action has failed to address the specific arguments submitted in the previous

amendment and provide a substantive response, Applicants respectfully request that, upon receipt of the Request for Continued Examination transmitted herewith, the Examiner enter the previous amendment and give full consideration of the remarks therein. For at least the reasons discussed in that response and above, the rejection of claims 1-65 set forth in the Final Office Action mailed September 13, 2002 is improper and should be withdrawn.

## CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
*FERGUSON et al, Applicants*

By: _____

Steven J. Henry, Reg. No. 27,900
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 720-3500

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